Experimental Poverty Measures in the Survey of Income and Program Participation

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In 1995 the National Academy of Sciences released a report recommending revisions of the official measure of poverty. The recommendations included using the Survey of Income and Program Participation for the basis of official income and poverty statistics. Since then the Census Bureau has conducted research and published in a series of reports developing a set of experimental measures that are comparable in concept to those used in the Current Population Survey. This paper presents and compares experimental poverty measures based on the SIPP versus the CPS and makes recommendations for future design implementation and estimation procedures.

Measuring poverty is a difficult task because “poverty” is not a simple concept. While people think they know poverty when they see it, the parameters by which one person is classified as poor while another one is not are complex and multidimensional. That is, there are many dimensions by which an individual can be viewed as poor. The current official measure of poverty is a measure of “cash income” poverty that indicates need only on the basis of whether a family obtains enough cash in a given year to purchase basic needs. But, of course, individuals might lack other important things, such as decent housing, safe neighborhoods, good schools for their children, a caring family, a nest egg, health insurance, and so on.

In 1995 the National Academy of Sciences Panel on Poverty and Family Assistance released a report recommending revising the current official poverty measure. Their revised measure, though still somewhat narrowly defined, broadened the scope of the poverty measure to include non-cash benefits and spending on such items as work-related expenses including childcare, taxes, and medical expenses -- items not explicitly included in the current measure.

The National Academy of Sciences Panel also recommended using the Survey of Income and Program Participation (SIPP) as the source to measure official poverty. The current source is the Annual Demographic Supplement to the Current Population Survey (CPS). The CPS was designed as a labor force survey to estimate monthly employment statistics. Supplementary questions asked

each March provide useful information on the income of households, but still do not collect all of the information needed to implement the NAS recommendations.

The SIPP, on the other hand, collects information on an extraordinarily broad set of dimensions. All of the information that the NAS Panel recommended including in a poverty measure is directly collected in the SIPP. The SIPP contains supplementary questions on work-related expenses, childcare, health care expenses, taxes, health status, as well as other material measures of wellbeing. The longitudinal feature allows estimates of transitions, spells, and outcomes that are not possible in a cross-sectional data set. Current work on experimental measures of poverty using the CPS relies on the SIPP for estimates of information about childcare and other work-related expenses.

The SIPP allows calculation of not only a measure of income poverty, but also a whole set of indicators of material wellbeing. Experimental measures of poverty from SIPP can be compared to those previously calculated using CPS data, as is done in this paper. Besides exploring the SIPP, this exercise provides insight into how well or badly we are measuring the dimensions of poverty in the CPS.

In addition, this exercise illustrates the importance of the SIPP to our understanding of measurement issues in general. Differences in sample design and data collection, however small, have an extraordinary effect on our measurement outcomes. As is shown here in the comparing measures of poverty from the CPS and the SIPP, more than one measurement tool is vital to a real understanding of economic and social phenomena. As quoted in Robert Groves' book on survey

methodology: “A man with one watch always knows what time it is; a man with two watches always searches to identify the correct one; a man with ten watches is always reminded of the difficulty of measuring time.”[1]

Data

This paper uses several surveys to construct experimental poverty measures. First, the Consumer Expenditure Survey quarterly interview data for 1994-1996 are used to construct experimental poverty thresholds as recommended by the NAS panel not covered in detail in this paper (see Garner et al., 1998, Johnson et al., 1997, Short et al., 1999).

Second, to measure family income or, as more broadly defined, family resources, the analysis uses the Current Population Survey Annual Demographic Supplement for March 1997 (the source for the current official measure of poverty) and the Survey of Income and Program Participation. This paper shows preliminary results from the 1996 panel with topical modules.

Some caveats are in order. The 1996 estimates shown here are based on a preliminary longitudinal file that is as yet unedited or imputed longitudinally. As such, there are also no longitudinally computed weights. The estimates shown here use the weight for the fourth month of the fourth wave of data. Only fully interviewed individuals are included in the analysis, and thus the weights are adjusted to get back to the fourth wave population totals. There is no attempt to adjust for differential attrition or other anomalies.

[1] Groves, Robert, 1989, p. 295.

An additional problem with the 1996 panel is that initial interviews had been delayed by several months at the beginning of the panel. Because of this there are no data for the first month of calendar year 1996 for the third rotation group, and no data for the first two months of the year for the fourth rotation group. To account for this, first month interview values have been copied back as needed to the missing months for these respondents.

Another way in which these estimates may differ from a fully edited longitudinal file is that there is no attempt here to impute for missing waves. Earlier longitudinally edited SIPP files have included these imputations, thus allowing for the inclusion of more observations in our analyses.

Finally, many of the calculations here are based on a fixed family as of December of 1996. That is, family level calculations shown here for expenditures based on topical module data are computed across the individuals found in each family in the last month of 1996. Other configurations might have been used, and would have resulted in somewhat different outcomes.

The NAS resource definition

The current official definition of poverty finds a family to be poor if total family pre-tax money income is below that family's poverty threshold, defined to be a particular dollar amount depending upon the family size and composition. In contrast to this, the NAS panel redefined the concept of family income to be one of "discretionary income". This definition changes the focus to be income that can be used to meet the families' basic needs (food, clothing, shelter, utilities plus a little bit more). In other words, we do not count income that must be used to meet necessary expenses such as taxes, and work-related and medical expenses. Thus, family income is the sum of money income

from all sources plus value of near-money benefits less expenses that cannot be used to buy the threshold bundle of goods and services.

The next sections of this paper describe the work done thus far to measure family resources in experimental poverty measures in the CPS and the SIPP. This exercise illustrates some of the important differences between the two surveys and sheds light on problems encountered and needed research. In the process we will learn, not only about measuring poverty in the SIPP, but where we are lacking when we measure poverty in the CPS.

Gross money income from all public and private sources

Our calculations start with current money income as defined and measured in the CPS and used to calculate official poverty statistics. This measure is cash income received on a regular basis and includes income from earnings, any cash transfers, and property income. Further, this is money income received in the previous calendar year of the family residing together as of March of the current year. It is before-tax income that was regularly received, and thus does not include net capital gains, gifts, lump sum inheritances or insurance payments.

There are some important differences between the two surveys we examine here. One is that the CPS, for our purposes at least, is treated as a cross sectional survey. The measure of income collected in the CPS is an annual one. Respondents report last calendar year's income. There are also questions on the families' participation in some government programs.

The SIPP, on the other hand, is a longitudinal survey. That is, income information is collected over time in a series of interviews that span a multi-year period. While advantageous in many important

ways, this method of data collection also introduces some difficult statistical problems, such as sample attrition. It is, however, generally believed that there are better income data in SIPP, particularly for lower income families (see Roemer, 2000, for detailed comparison of cash income between the SIPP and the CPS). Collected three times a year, and on a monthly basis, there is more opportunity provided respondents to recall and report income that is received in relatively small amounts for short periods of time. In addition, there is a great amount of relevant information collected in the SIPP, participation in more programs, income received from many more sources, than is available in the CPS. And finally, the SIPP has supplementary questions that collect information on the multiple dimensions required in experimental poverty measures, such as work-related expenses and childcare. These are the data used currently to impute values to the CPS, where no such information is collected.

CPS Income Sources

Earnings
Unemployment compensation
Workers compensation
Social Security benefits
SSI benefits
Public Assistance, such as TANF
Veterans payments
Alimony payments received
Disability benefits
Pensions
Interest income
Dividends
Rents, royalties
Educational assistance
Child support received
Regular private transfers

In terms of income data, the CPS has good income information relative to many surveys. The text box shows all income sources collected in the CPS. For each of these income types annual amounts are reported as received in the previous calendar year. These data are collected in March of each year, near the date when income taxes are due, under the belief that annual income amounts are available to individual respondents at that time. This official income measure is defined, according to an Office of Management and Budget (OMB) directive, as income received on a 'regular' basis. The text box shows the income sources which are in the CPS.

The SIPP, on the other hand, collects information on many more income sources than the CPS, as is seen in the text box for SIPP. In addition, SIPP income is reported on a monthly basis over a multi-year period of time. In the SIPP we also have information about one-time receipts, and lump sum amounts received.

SIPP Income Sources

Earnings
Social Security/Railroad Retirement
SSI/federal and state
Unemployment Insurance
Supplementary unemployment insurance
Veterans compensation
Black lung benefits
Worker compensation
State temporary disability
Employer or union temp
Payments from insurance
AFDC/TANF/GA
Indian/Cuban or refugee assistance
Foster childcare
WIC
Child support
Alimony
Pension, military retirement
Paid up life insurance policies
Annuities
Estates and trusts
Other retirement/survivor
GI bill
Educational assistance
Charitable income
Private transfers
Lump sums
National guard or reserve
Interest income from
- -savings accounts
- -money market deposit accounts
- -certificates of deposit
- -interest earning checking accounts
- -money market funds
- -US government securities
- -municipal or corporate bonds

Dividends from stocks or mutual funds
Rental property income
Mortgages
Royalties
Other financial investments

Addition of the Value of In-kind Government Subsidies

Constructing experimental measures of poverty starts with gross cash money income, calculated in the CPS and the SIPP and to this we add various in-kind transfer payments. Following the NAS panel, these will only be non-medical in-kind transfers, so that we are not including the value of medical benefits such as Medicare and Medicaid. As will be seen, we will take care of health care needs as a 'necessary expense'. The noncash benefits considered will be primarily the large federal programs that are means-tested. These include the food stamp program, the school lunch and breakfast programs, Supplementary Nutrition Program for Women, Infants, and Children, housing subsidy programs, and the energy assistance program.

Food stamps

This section begins with adding the value of food stamps. This is by far the easiest of noncash programs to value. This calculation is straightforward, using the reported face value amounts which are added directly to income. The information is collected somewhat differently in the two surveys, nevertheless both surveys yield similar estimates of the dollar amounts distributed to needy families in the U.S. Some differences are apparent. The table shows the percent of all families receiving these benefits, and the percent of all poor families receiving benefits. In these tables the percent poor refers to families classified as poor using the current official definition of poverty. As shown, SIPP indicates a higher percentage of the official poor receiving food stamps, than is measured with the CPS, suggesting that SIPP is better able to identify the poor than the CPS.

Another general pattern that is observed is that SIPP captures more receipt but demonstrates lower mean amounts that the CPS. This is a typical result commonly found , since the sub-annual reporting in SIPP allows for greater recall of short spells of receipt that yield lower annual amounts.

Finally, the aggregate amounts in the SIPP should be noted with caution due to the fact that no appropriate longitudinal weights are yet available. Nevertheless, we see that for foodstamps, the greater reporting of recipiency results in higher aggregate amounts for all families than is measured in the CPS. As with most of the information on income, both cash and noncash, used in these calculations, there is generally evidence of significant underreporting of transfer receipt in our surveys when compared with administrative data.

CPS

- reported receipt ever in year
- total annual amount received
- 8 percent participated
- average benefit $1,621
- 36 percent of poor
- average $1,824
- aggregate amount $14.2 billion

SIPP

- reported each month
- monthly face value amounts
- 10 percent participated
- average benefit $1,546
- 47 percent of poor
- average $1,870
- aggregate amount $17.1 billion

Housing Subsidies

Including the value of housing subsidies in cash income is a more complex task than including the value of food stamps. In the CPS respondents are only asked to report their current status as of March concerning whether or not they live in public housing or receive help from the government with rent. There is no further information collected that helps to determine a dollar amount to add to family income. Furthermore, since we only know current status we must make assumptions about the duration of receipt of subsidies. In this case we assume the subsidy was received for all 12 months in the previous calendar year. The amounts used in this calculation are based on 1985 American Housing Survey data.

In the SIPP more information is available. The reference person reports current status every four months, so it is possible for us to capture spells of subsidy receipt that are less than a year. It also allows capture of more spells than from asking only once in the year. There is also additional information in the SIPP that is not available in the CPS. Respondents are asked to report the monthly rent paid, and whether or not this includes utilities. While at some point we can use this information to calculate more precise subsidy amounts in the SIPP, the value of housing subsidies are not yet available. Research is underway to include this important noncash benefit.

Given the information available, however, we again note that the SIPP captures a higher percentage of poor participating in programs than we find in the CPS.

CPS	SIPP
• reported receipt of help with rent or residence in public housing NOW	• reported receipt or residence in public housing every 4 months
• assume all year	• no valuation method available
• modeled with 1985 AHS	• rent paid is collected
• 5 percent report subsidy	• 5 percent receive
• average value $2,000	• NA
• 17 percent of poor	• 21 percent of poor
• average $2,605	• NA
• aggregate $10.6 billion	• NA

School lunch program

In the case of school lunches there is a large discrepancy between the way the information is collected in the two surveys. In the CPS the reference person is asked how many children 'usually' ate a complete lunch, and if it was a free or reduced priced school lunch. Since we have no further information we assume that the children received the lunches every day during the last calendar year. Then we multiply the number of children by a dollar amount per lunch. That figure is then multiplied by the number of days in the typical school year.

In the SIPP, there is information on participation in the school lunch program every four months. In the 1996 SIPP questionnaire we asked how many children 'usually' ate a school lunch and were they regular, free, or reduced price lunches. Clearly the number of children who 'usually' ate a school lunch in the last 4 months may differ from the number of children who 'usually' ate lunch in the previous year. For both the CPS and the SIPP we obtain amounts on the cost per lunch from

the Department of Agriculture Food and Nutrition Service that administers the school lunch program.

The difference in data collection methods yields different estimates of this subsidy from the two surveys. As might be expected, we estimate more children receiving free and reduced price lunches in the SIPP. This is so because children who may not have 'usually' received a lunch in the previous year may be reported in the SIPP as 'usually' getting a school lunch in the previous four months. On the other hand, the average value of school lunches for a given year received per child is lower, since less than full-year participation is captured in the SIPP and these smaller amounts are included in the mean. The general pattern suggests that the valuation procedure in the CPS is probably biased. In that case we are probably assigning too high a subsidy to too few families.

CPS
- number of children usually received
- value based on program information
- assume received all year
- 19 percent
- $291 average amount
- 27 percent of poor children
- $576 per year
- aggregate $6.2 billion

SIPP
- number of children usually received
- value based on program information
- report every 4 months
- 24 percent
- $273 average
- 36 percent poor
- $586
- aggregate $7.5 billion

School breakfast

Differences in data collection are most apparent between the CPS and SIPP for school breakfasts, since no data on this program are collected in the CPS. Respondents report the number of breakfasts eaten by the children per week in the SIPP, similar to the report of school lunches. Calculating a value for this subsidy in the same way as was done for the school lunch program adds approximately two billion dollars to income of families in the SIPP.

CPS
- NA
- NA
- NA
- NA
- NA

SIPP
- 9 percent participated
- average value $231
- 26 percent of poor
- average $339
- aggregate $2.3 billion

WIC

Another program for which we only have information in the SIPP is the Special Supplemental Nutrition Program for Women, Infants, and Children, or the WIC program. In the SIPP, participation in this program is reported every month. The total value of the transfer is calculated using an amount assigned using program information from the Department of Agriculture. Again, the aggregate amount is about two billion dollars in 1996.

CPS
- NA
- NA
- NA
- NA
- NA

SIPP
- 5 percent participated
- average benefit $360
- 17 percent of poor
- average $424
- aggregate $2.1 billion

Energy assistance

Here again is another major difference in data collection schemes. In the CPS a question is asked whether or not, since October 1 of the previous year, did the reference person receive help with heating costs. And if so, they report the amount received. In the SIPP, on the other hand, which conducts an interview every four months all year round, information on help with both heating and

cooling are collected, both whether or not help was received and the dollar amount received. This difference in data collection has been seen to result in slightly more recipients and slightly higher average benefits reported in the SIPP using earlier panels, such as the 1991 and 1992 SIPP panel. However, in the 1996 panel, questions about amounts were changed. If the respondent reported that the subsidy was paid directly to the utility company, than no amount was collected. This change will require a valuation procedure for energy assistance in an experimental poverty measure using the SIPP. The estimates shown here are only reported amounts.

CPS

- since Oct 1 of last year ever received
- how much received
- 3 percent received help
- average benefit $187
- 10 percent of the poor
- $174
- aggregate $0.5 billion

SIPP

- reported every 4 months
- how much received
- 4 percent received
- $136 average
- 17 percent of poor
- $145
- $0.6 billion

Subtract necessary expenses

The items described above represent all of the additions to income or family resources that are made to calculate an experimental poverty measure. The next thing to do is subtract items that must be paid before determining how much is available to purchase basic necessities. The NAS panel said that families must first pay taxes, meet any expenses required to work and to maintain health. They further suggested that any amount of child support paid should be deducted from income since it is reported by families who receive child support as income. In our official income statistics this is not done and thus child support transfers are doubly counted in our household income statistics.

It is important to note that, while all of the items included in income are collected in the SIPP on a monthly or 4-month basis, none of the items that will be subtracted from income as necessary expenses are collected this often. All of these items are collected in topical modules, which are supplementary questions usually asked only once per year, or less often.

In the CPS, on the other hand, no information on necessary expenses is collected. All of these items, in current calculations of experimental poverty measures, are either assigned or modeled, as will be shown below. Thus the relationship of estimates of these items between the SIPP and the CPS is different from the estimates of noncash benefits described above.

In previous panels of SIPP there has been a problem with using information reported in the SIPP topical modules in these calculations. That is, the topical module information was not always reported or included for a given family and there was no imputed values for missing data items. This presented a problem for experimental poverty measurement calculations. Fortunately, in the 1996 panel there is an imputation procedure in place to calculate these expenditures for families with missing data. Typically the missing data items are imputed item-by-item, as would be done with the same module if only one item were missing. In the past there has been a problem with using information reported in the SIPP topical modules in these calculations. That is the topical module information is not always reported or included for a given family. In the 1996 there is an imputation procedure in place to calculate these expenditures for families with missing data. Typically the missing data items are imputed item-by-item, as would be done with the same module if only one item were missing.

Subtraction of Taxes Paid

The panel recommended that the calculation of family resources for poverty measurement should subtract federal, state, and local income taxes, and Social Security payroll taxes (FICA). In this process we will add the Earned Income Tax Credit (EITC). The CPS includes estimates of simulated taxes paid. These simulations include federal and state income taxes, and social security taxes. These simulations are based on a tax calculator and statistical matches to tax data and American Housing Survey data.

In the SIPP there is a supplementary questionnaire, the tax topical module, that asks the respondent about taxes paid. Besides amounts to be reported from specific lines on the tax return, respondents are asked about filing status, exemptions, which forms were filed, e.g. 1040ez, Schedule A (itemized deductions), Schedule D (capital gains and losses). They are asked to report amounts from the calculated child care credit, elderly credit, AGI, capital gains/loss, taxes owed, EITC, and property taxes paid. While there is an attempt to collect a great deal of information in this tax module, in fact very little is collected. Respondents do not report these items. The calculations below show the SIPP reported data only and compare it to the CPS simulated data. We are currently preparing a tax model for the SIPP to address this need.

CPS

- simulated
- Federal income
- State income
- FICA
- property taxes
- 72 percent paid federal income tax
- average $7,808
- 14 percent received EITC
- average amount $1,347

SIPP

- reported amounts paid
- filing status
- number of exemptions
- schedules filed
- **Underreporting very high**
- 25 percent report taxes
- average amount $8,608
- 2 percent report EITC
- $1,749

Expenses Related to Work Including Child Care Necessary to Work

In the area of work-related expenses other than child care the NAS panel recommended that we subtract $750 for 52-week work-year per earner 18 years of age or older (or about $14.42 per week worked) in 1992. Their calculation was based on 1987 SIPP data that collected information on work expenses in a set of supplementary questions. Then they calculated 85% median weekly expenses that came to $14.42 per week worked for anyone over 18 in the family in 1992. Total expenses were obtained by multiplying this fixed amount by the number of weeks respondents reported working in the year. The panel argued that, since many families make other sacrifices, move near work, work opposing shifts, to minimize work expenses, reported expenses wouldn't reflect these costs and thus it would be better to use a fixed dollar amount. These method is used in the CPS calculations shown.

In the 1996 panel of SIPP, a new topical module, similar to the one last administered in 1987, was included to collect work-related expenses. Each person in the SIPP reports their own expenditures on work-related items and those reported values are shown here.

Due to assumptions made in the CPS calculations, more people are assigned work-related expenses than actually report them in the SIPP. The average CPS amounts, representing 85 percent of the median in the SIPP, are considerably lower than the mean of reported amounts in SIPP. The SIPP average is almost four times that of the CPS values. Thus, the imputation recommended by the NAS panel, while covering a larger percentage of workers, is a conservative estimate of the amount people spend to go to work.

One other thing to note here is that a lower percentage of the official poor actually report work expenses in the SIPP than are imputed in the CPS, and the amounts reported by the poor are higher, but not as much higher, as compared with all people. This may represent the fact that the working poor are constrained in their spending for these expenses and are reporting smaller amounts than they might spend if they could afford to.

CPS
- fixed amount for all workers
- 78 percent worked
- average expense $1,143
- 48 percent of poor worked
- average $595
- aggregate expenses $100 billion

SIPP
- reported in SIPP module
- 32 percent have expenses
- average expense $4,174
- 22 percent of poor
- $1,324
- aggregate $151 billion

Child care expenses

To account for child care expenses, the panel recommended subtracting an amount limited to $2,400 for one child and $4,800 for two or more children in 1992. For their calculation the panel used a model estimated using data from the SIPP 1990 panel topical module on child care expenses. They used this model to impute child care expenses to families in the CPS. We have re-estimated that model with 1992 panel data. For the SIPP calculation we show estimates based on reported spending in the child care topical module.

The table shows results that are similar for both surveys, which is to be expected, since the CPS estimates are modeled using SIPP data. For the official poor, the results are comparable to spending for other work-related expenses. While the imputation for child care in the CPS does not assign amounts to all workers, like that of other work related expenses, it does assign expenditures to more

poor working families and it assigns larger amounts. Again, the amounts actually reported in the SIPP may represent constrained expenditures on the part of the poor.

CPS

- modeled from SIPP
- 8 percent pay for child care
- average cost $2,769
- 6 percent of poor
- pay $2,111 on average
- aggregate $24 billion

- SIPP
- reported in supplementary questions
- 8 percent report paying
- average $3,040
- 4 percent of poor
- $1,467
- aggregate $27 billion

Subtraction of Medical Out-of-Pocket Expenditures MOOP

For this necessary expense we use the method employed by the NAS panel in their report with some slight revisions from their original application. The NAS panel modeled medical expenses using 1987 National Medical Expenditure Survey (NMES) data. They used a two-step procedure, first estimating the probability of incurring MOOP expenses for families of various characteristics. Within each category they assumed a logistic distribution to estimate MOOP as a function of age, race, income, and insurance coverage status. At the end of the procedure they calibrated to benchmark totals. To this predicted amount we add Medicare Part B premiums.

In the SIPP there is a topical module on utilization of health care. In this module adults report their own spending for their health care needs. Unfortunately, these data do not include spending for children. The major purpose of these data is to enable a statistical match to the 1996 panel of the Medical Expenditure Panel Survey to prepare a medical risk index. Nevertheless, we include calculations of these reported data here for illustration. There is work underway to impute a value for MOOP in the SIPP that improves these reported estimates.

CPS

- modeled based on 1987 NMES
- calibrated to benchmark totals
- 92 percent
- $2,581
- 77 percent of poor
- $1,765
- $265 billion

SIPP

- reported in topical module
- only adults report
- 75 percent
- $1,941
- 46 percent of poor
- $1,486
- $163 billion

Child support paid

We only have this information in the SIPP. While questions about child support paid have been tested on the CPS, there are currently no plans to add them to the questionnaire. In the 1996 panel of the SIPP, respondents reported this information in supplementary questions.

CPS

- NA
- NA
- NA
- NA
- NA

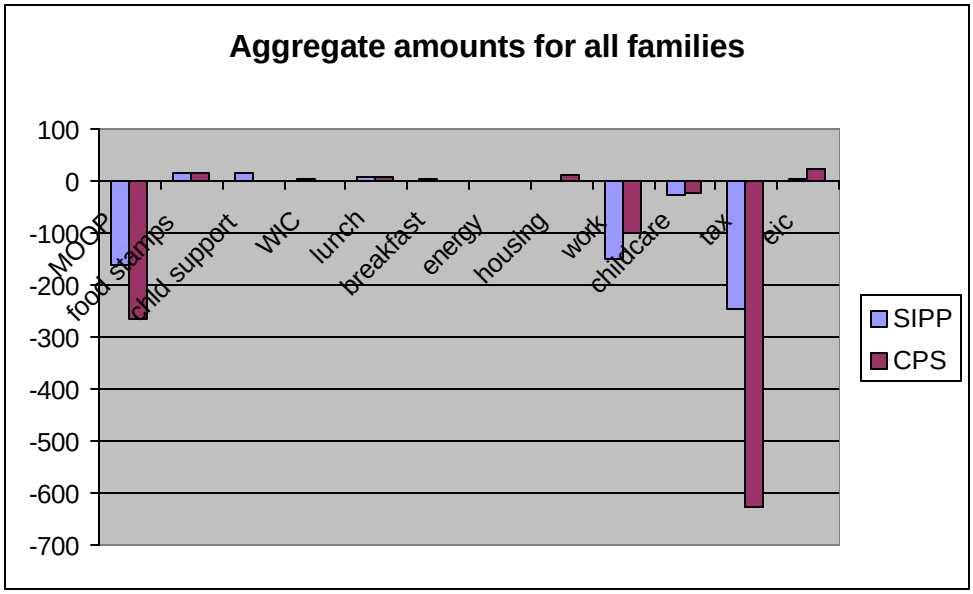
SIPP

- 3 percent paid
- $4,985
- 1 percent of the poor
- $2,089
- aggregate $17.2 billion

How it all adds up

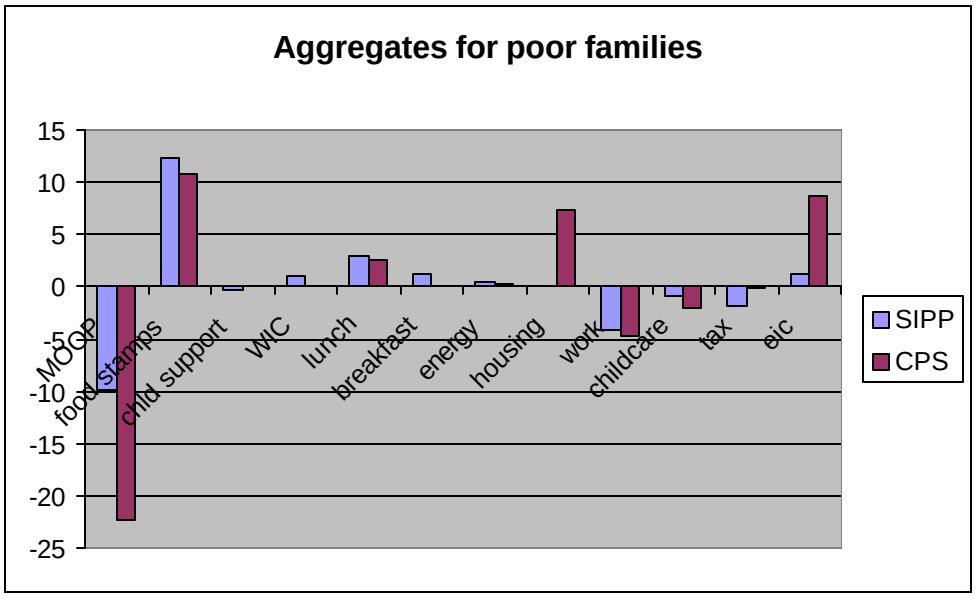
Thus far we have described in some detail all of the calculations performed in two surveys to arrive at a measure of family resources similar to that recommended by the NAS panel to calculate an improved measure of poverty. After performing all these operations, what has happened to family incomes? This first chart shows our calculations in the aggregate by income source for all families, regardless of income. It is clear from the chart that we are subtracting more than we are adding to

family income to move from an official measure of poverty to an experimental one. This is particularly true for taxes - more appropriately modeled in the CPS than reported in the SIPP. Medical out-of-pocket expenses also are quite large. Inkind transfers, on the other hand, are very small. Differences between the two surveys can be observed here, though they are obscured by the gross calculations. Primarily we see that the lack of tax information in the SIPP is a large problem. We further note that the estimates for MOOP need improvement in the SIPP and a valuation for housing subsidies is required.



However, this picture is not most important for our focus on the poor. More interesting to this purpose is to examine what happens to family incomes or resources of those people who are classified as poor. This second charts shows additions and subtractions for those who are classified as poor using the official measure, and as such, since the scale shrinks considerably, allows us to see more clearly the small amounts of inkind transfers. Here there is quite a bit more balance between additions and subtractions. The major subtraction that we see for the poor is for MOOP.

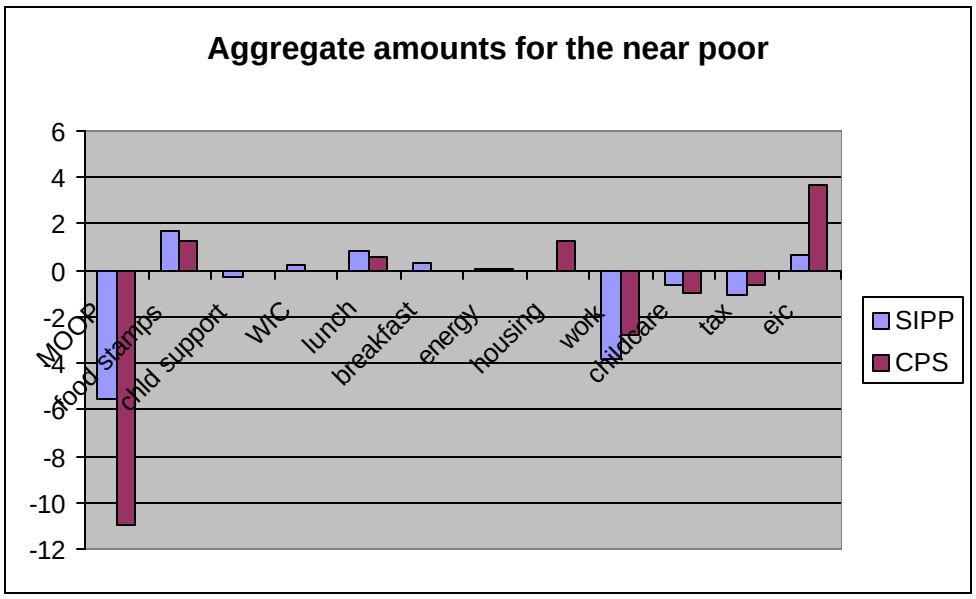
Differences between the surveys are also more apparent here. Though comparisons should be made with caution due to the lack of appropriate weights in the SIPP at this time.



Finally, a closer look at the group most like to be affected by the changes to income calculations, the "near poor". This third chart shows the same calculations for persons with family income just above the official poverty line, family income is between 100 and 125 percent of the poverty line. The chart with these calculations shows more subtractions than additions and therefore many more "near-poor" people will be classified as poor under this new measure, and it will often be caused by the deduction of medical out of pocket expenses from income.

Clearly apparent in this chart, also, is the need for additional calculations for this experimental measure in the SIPP. The underestimate of MOOP is clear from this chart, the lack of values for

housing subsidies, and lack of tax information, particularly the EITC, are required for further work in this area to continue.



Summary and further work

This paper has described in some detail the challenge of changing and moving the measurement of poverty in the CPS to measuring poverty in the SIPP. There is much detail presented on the different design and collection methods of each element of a poverty measure. There are important effects from these differences on the estimation of poverty measures. We have also described differences in measurement methods, and this is an area where more work needs to be done. The most important of the differences are from the lack of tax information in the SIPP, and this work is underway for SIPP at the Census Bureau. Other measurement improvements, such as alternative

valuations of MOOP and housing subsidies are continuing and will further affect different estimation outcomes between the two surveys. Most important, however, is the design of SIPP, primarily a longitudinal data set, from which we need to extract reasonable cross-sectional estimates.

New Panels of the SIPP

A primary recommendation of the NAS panel was to make the SIPP rather than the CPS the official source of poverty statistics. Methodological investigation by the Census Bureau has concluded that a time series of official statistics, such as poverty, must be based on surveys with consistent design characteristics. For a longitudinal survey like the SIPP this means that the characteristics of the sample (consisting of households which stay in sample for several years) must not change from year to year. But we know from past research that families in poverty leave the sample at higher rates than non-poverty families (Huggins and Winter, 1995). As a consequence, direct survey estimates cannot be used without accounting for and correcting the bias introduced by this differential attrition.

One solution would be creating a survey design with constant attrition bias (like the BLS has done with the CPS) that lets us measure year-to-year changes accurately (if both years' estimates are biased in the same way, their difference is not biased). Constant attrition bias for an annual statistic like poverty can be obtained by starting a new SIPP panel each year (just as the CPS adds new sample each month to allow it to accurately measure month-to month changes in unemployment and the CPS rotation scheme permits comparisons of annual averages). Specifically, we propose fielding a new SIPP panel each year, with each panel to collect data for three years.

We have proposed a sample size that is the minimum necessary to produce a time series of statistics with the same variance as the March CPS estimates. Ideally, each panel should begin in February to provide a complete measure of calendar year income. The plan is to supplement the existing longitudinal panel of 36,700 SIPP households with two additional panels of 12,700 households each. These additional panels would enable us to produce stable cross-section estimates and to allow time-series comparisons.

In the end, we have learned much from this exercise of measuring poverty in the SIPP. Even without the change in the design of the sample, we have a more informed view of what we are measuring when we say we are measuring poverty in the CPS. We are now able to say something about the nature of the bias of the estimates in the CPS, due to the analysis of SIPP. Of course, many of the important elements of the revised poverty measure, such as childcare and other work expenses, are based directly on information from the SIPP. Further analysis of SIPP that takes advantage of the longitudinality of the survey, can add insights into how families of varying types experience poverty over time and if a different measure tells us something new about the persistence of poverty.

Table 1: Noncash Benefits and Necessary Expenses of Families in the SIPP and CPS: 1996

SIPP

	% paid/received		mean amount ($)		aggregate (bil$)		
	all	poor	all	poor	all	poor	near poor
MOOP	75.1	47.0	1,941	1,486	163.2	9.8	5.5
food stamps	9.9	46.5	1,546	1,870	17.1	12.3	1.7
child support	3.1	1.0	4,985	2,090	17.2	0.3	0.3
WIC	5.1	16.7	360	424	2.1	1.0	0.2
lunch	24.4	36.4	273	586	7.5	3.0	0.8
breakfast	9.0	25.5	136	339	2.3	1.2	0.3
energy	4.0	17.3	181	145	0.6	0.4	0.1
housing	4.8	21.7	0	0	0.0	0.0	0.0
work	32.2	22.1	4,174	1,325	150.7	4.1	3.8
childcare	7.8	3.8	3,040	1,467	26.6	0.8	0.6
tax	25.4	4.7	8,608	2,703	245.0	1.8	1.1
eic	2.2	5.7	1,795	1,671	4.4	1.3	0.7

CPS

	% paid/received		mean amount ($)		aggregate (bil$)		
	all	poor	all	poor	all	poor	near poor
MOOP	92.0	76.9	2,581	1,765	265.0	22.3	11.0
food stamps	7.9	35.7	1,621	1,825	14.2	10.7	1.3
child support	0.0	0.0	0	0	0.0	0.0	0.0
WIC	0.0	0.0	0	0	0.0	0.0	0.0
lunch	19.2	27.0	291	576	6.2	2.6	0.6
breakfast	0.0	0.0	0	0	0.0	0.0	0.0
energy	2.6	10.2	187	174	0.5	0.3	0.1
housing	4.8	17.1	2,000	2,605	10.6	7.3	1.3
work	78.4	48.4	1,143	595	99.9	4.7	2.8
childcare	7.8	5.8	2,769	2,111	24.1	2.0	1.0
tax	71.9	4.9	7,808	210	626.7	0.2	0.6
eic	14.4	34.4	1,347	1,530	21.6	8.7	3.7

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